

WO 2005/014926

PCT/EP2004/050775

10

**Claims**

1. A paper machine fabric having a paper side warp layer and a machine side warp layer, the fabric comprising at least one set of paper side wefts interlaced with paper side warps, at least one set of machine side wefts interlaced with machine side warps and at least one pair of interchanging weft binders, the members of each weft binder pair together forming one continuous weft path on the paper side, all of said weft binder pairs interweaving with at least one paper side warp and at least one machine side warp, wherein at least one weft binder yarn member of at least one binder pair interlaces in an unlocked position with at least one warp yarn of the machine side of the fabric.  
5
2. A paper machine fabric as claimed in claim 1, wherein at least one weft binder yarn member of each binder pair interlaces with machine side warp in an unlocked position.  
10
3. A paper machine fabric as claimed in claim 1, wherein all weft binder yarn members of all binder pairs interlace with machine side warp yarns in unlocked positions.  
15
4. A paper machine fabric as claimed in claim 1, wherein at least one weft binder yarn member of at least 25% of the binder pairs interlaces with machine side warp in unlocked positions.  
20
5. A paper machine fabric as claimed in any preceding claim, wherein the paper side weave pattern comprises weft floats which extend over two or more adjacent paper side warp yarns.  
25
6. A paper machine fabric as claimed in any of claims 1 to 4, wherein the paper side weave pattern is plain weave.  
30
7. A paper machine fabric as claimed in any preceding claim, wherein the

WO 2005/014926

PCT/EP2004/050775

11

machine side weave pattern is selected from the group including 5,7,8,10 shaft regular sateen.

8. A paper machine fabric as claimed in any preceding claim, wherein the  
5 ratio of paper side to machine side weft yarns, when counting a pair of  
interchanging wefts as a single paper side weft, is selected from the  
group including 1:1, 2:1, 3:2, 4:3, 5:3.

9. A paper machine fabric as claimed in any preceding claim, wherein the  
10 ratio of paper side to machine side warp yarns is selected from the  
group including 1:1, 2:1, 3:2, 4:3, 5:3.

10. A paper machine fabric as claimed in any preceding claim, wherein all  
15 non-interchanging paper side weft yarns are distributed in groups of  
one paper side weft and each group is separated by a pair of  
interchanging weft binders.

11. A paper machine fabric as claimed in any of claims 1 to 9, wherein all  
20 non-interchanging paper side weft yarns are distributed in groups of  
two paper side wefts and each group is separated by a pair of  
interchanging weft binders.

12. A paper machine fabric as claimed in any of claims 1 to 9, wherein all  
25 non-interchanging paper side weft yarns are distributed in equal sized  
groups of at least three paper side wefts and each group is separated  
by a pair of interchanging weft binders.

13. A paper machine fabric as claimed in any of claims 1 to 9, wherein  
30 non-interchanging paper side weft yarns are distributed in groups of at  
least two different sizes and each group is separated by a pair of  
interchanging weft binders.

WO 2005/014926

PCT/EP2004/050775

12

14. A paper machine fabric as claimed in any of claims 1 to 9, wherein  
interchanging weft binder pairs are less numerous than the non-  
interchanging paper side wefts.
- 5 15. A paper machine fabric as claimed in any of claims 1 to 9, wherein  
interchanging weft binders pairs are present in equal number to the  
non-interchanging paper side wefts.
- 10 16. A paper machine fabric as claimed in any of claims 1 to 9, wherein  
interchanging weft binder pairs are more numerous than the non-  
interchanging paper side wefts.
- 15 17. A method of making paper, said method comprising the steps of:  
i) providing a paper machine fabric according to any of the preceding  
claims;  
ii) depositing paperstock on the papermaking side of said  
papermachine fabric;  
iii) dewatering said paperstock through said papermachine fabric.